UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
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APR 0 4 2016

Mr. Curtis Chambellan
CLWR SEIS Document Manager
Department of Energy
National Nuclear Security Administration
P.O. Box 5400
Albuquerque, NM 87185-5400

Re: EPA Review and Comments, Final Supplemental Environmental Impact Statement (FSEIS) For the Production of Tritium in a Commercial Light Water Reactor, ERP Number DOE-E09802-00, CEQ No. 20160047

Dear Mr. Chambellan:

Pursuant to Section 309 of the Clean Air Act (CAA) and Section 102(2)(C) of the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency Region 4 office reviewed the Final Supplemental Environmental Impact Statement (FSEIS) for the Production of Tritium in a Commercial Light Water Reactor, dated February 2016. We appreciate your responses to our comments on the Draft SEIS, which are included in Appendix G of the FSEIS. The purpose of this letter is to transmit the results of the EPA's review of the FSEIS.

This FSEIS is the result of the U.S. Department of Energy (DOE) National Nuclear Security Administration's (NNSA's) analysis of the potential impacts from tritium-producing burnable absorber rods (TPBARs) irradiation at TVA sites. Based on a high (conservative) estimate of the tritium permeation rate the NNSA's analysis provides for a revised estimate of the maximum number of TPBARs necessary to support the nation's tritium supply requirements.

The FSEIS Preferred Alternative (Alternative 6) provides for flexibility to irradiate up to a total of 5,000 TPBARs in an 18-month period at either or both the Watts Bar and Sequoyah nuclear plant sites to meet national security requirements. Formerly, the preferred alternative from the DSEIS was Alternative 1, allowing for irradiation of up to a total of 2,500 TPBARs every 18 months at the Watts Bar nuclear plant site only.

We appreciate the responses to our previous comments, and the updated information included in the FSEIS regarding emergency preparedness, radioactive waste, radionuclides in groundwater and surface water, socioeconomics, Environmental Justice (EJ), endangered and threatened species, indirect and cumulative impacts, historic preservation and greenhouse gases (GHGs). The EPA appreciates the incorporation of climate change language in the FSEIS that recognizes the potential impacts that climate change may have on the project, and provides for a fuller discussion of potential environmental impacts to inform decision makers and the public.

Based upon our detailed review of the FSEIS, there are environmental concerns that should be addressed as the project proceeds. Specifically, radiological and effluent monitoring should continue as the project progresses. The FSEIS notes that both the Watts Bar and Sequoyah nuclear plants have infrastructure and/or management plans for increased storage of spent nuclear fuel assemblies, and that continued storage of spent nuclear fuel will be required until a permanent repository becomes available. We recommend that the project team continue to work closely with any affected communities, regulatory agencies, and other stakeholders as the project progresses.

In Section 4.5, Mitigation Measures, the FSEIS describes plans for a 500,000 gallon holding tank for 'tritiated' water to be constructed at Sequoyah, similar to the existing tank at Watts Bar, to facilitate the management of tritium. The FSEIS describes plans to release the water to the Tennessee River in a controlled manner in order to minimize environmental impacts after it has passed through the liquid radioactive waste processing system. The FSEIS states that: *"The systems would enable TVA to plan fewer releases each year and to ensure that site effluents would continue to remain well below regulatory concentration limits."*

In Appendix D, Human Health Effects from Facility Accidents, there is an evaluation of the potential environmental impacts due to accidents associated with the reactors and fuel handling at the Sequoyah and Watts Bar nuclear plants, but does not evaluate the scenario of potential breaches of the holding tanks. We recommend that the potential consequences of a breached holding tank releasing water to the owner-controlled area and flowing to the Tennessee River be further evaluated during the finalization of the Record of Decision (ROD).

Thank you for the opportunity to comment on this project. Please send us a copy of the ROD when it becomes available. If you have any questions, please contact Ramona Klein McConney, of my staff, at mcconney.ramona@epa.gov or 404-562-9615.

Sincerely,

G. Alan Farmer
Director
Resource Recovery and Restoration Division

cc: Charles P. Nicholson, Tennessee Valley Authority